

**Supplementary Table 3.** Pilot Study of Associations of Daughter Breast Cancer Stage and Tumor Receptor Status with Main Study Variables: All Breast Cancer vs. Breast Cancer Staged as Localized or In Situ, and Estrogen-Receptor Positive Tumors

Study Variable	All Breast Cancer Fully Adjusted Model <sup>1</sup> (N <sub>cases</sub> =44) N <sub>total</sub> =2947			Early Stage at Diagnosis* Fully Adjusted Model <sup>1</sup> (N <sub>cases</sub> =25) N <sub>total</sub> =2928			Estrogen-Receptor Positive** Fully Adjusted Model <sup>1</sup> (N <sub>cases</sub> =30) N <sub>total</sub> =2933		
	HR	95% CI	P-value	HR	95% CI	p-value	HR	95% CI	P-value
Fetal/in utero Factors									
Ponderal Index <sup>2</sup>	0.21	0.05 – 0.88	0.033	0.13	0.02 – 0.75	0.022	0.23	0.04 – 1.26	0.090
Small-for-gestational age (SGA) <sup>3</sup>	2.44	0.94 – 6.33	0.067	2.50	0.63 – 10.03	0.195	4.61	1.69 – 12.57	0.003
Maternal weight gain (2 <sup>nd</sup> trimester) <sup>4</sup>	2.28	1.19 – 4.35	0.013	2.94	1.29 – 6.70	0.010	2.61	1.22 – 5.56	0.013
Maternal weight gain (3 <sup>rd</sup> trimester) <sup>4</sup>	1.09	0.55 – 2.15	0.809	1.09	0.46 – 2.55	0.848	0.95	0.42 – 2.12	0.896
Placental Factors									
High placental volume (>360 cm <sup>3</sup> ) <sup>5</sup>	1.76	0.89 – 3.48	0.106	2.68	1.06 – 6.75	0.037	2.00	0.88 – 4.56	0.099
Presence of fibrin deposition <sup>6</sup>	0.39	0.15 – 0.99	0.047	0.20	0.07 – 0.60	0.004	0.30	0.10 – 0.89	0.029
Occurrence of hemorrhage	0.17	0.02 – 1.20	0.076	-----	-----	-----	0.23	0.03 – 1.70	0.150
Presence of placental tumor <sup>7</sup>	7.34	2.27 – 23.79	0.001	17.43	3.98 – 76.43	<0.001	14.21	2.66 – 75.96	0.002

HR=Hazard Ratio; 95% CI=95% Confidence Interval, estimated from proportional hazards models.

\*Early stage at diagnosis was classified as localized or in situ. Late stage tumors were excluded from the sample. There were no hemorrhage events among early stage tumors so this variable was removed from the model.

\*\*Estrogen-receptor negative tumors were excluded for this analysis.

<sup>1</sup>The fully adjusted model included the maternal adjustment variables: history of breast cancer (yes vs. no), race (East-European vs. all other), overweight at pregnancy baseline measure (BMI  $\geq 25$  kg/m<sup>2</sup> vs. other), and week of gestation (continuous), plus all main study variables entered concurrently, except for ponderal index and small-for-gestational age. Due to high collinearity the fully adjusted model for ponderal index did not include small for gestational age and conversely the fully adjusted SGA model did not include ponderal index.

<sup>2</sup>Ponderal index was calculated as birthweight (kg) / birth length (cm<sup>3</sup>) x 100 and represented as a 4-category ordinal variable coded at quartile medians: 2.14, 2.35, 2.51 and 2.75 respectively for quartiles 1-4. The hazard ratio shown is for an increment of one unit.

<sup>3</sup>Small for gestational age was defined as the lowest decile of the birth-weight-for gestation standardized score vs. all other.

<sup>4</sup>Trimester-specific rates of maternal weight gain were classified as the 4<sup>th</sup> quartile of weight gain for each trimester vs. all lower quartiles. High 2<sup>nd</sup> trimester rate of weight gain was equivalent to  $\geq 1.1690$  pounds per week and high 3<sup>rd</sup> trimester rate of weight gain was equal to  $\geq 0.9996$  pounds per week.

<sup>5</sup>High placental volume was represented as a dichotomous variable, >360 cm<sup>3</sup> (above the median) vs.  $\leq 360$  cm<sup>3</sup> (at or below the median).

<sup>6</sup>Fibrin deposition was defined as the presence of maternal floor infarction and/or massive or diffuse and patchy subchorionic fibrin vs. absence.

<sup>7</sup>Placental tumors were reportedly benign chorioangiomas as described by Benirschke [K. Benirschke, Examination of the placenta, Obstet. Gynecol. 18(3) (1961) 309-333].